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## ESTIMATED SMALL GRAIN LOSSES FROM RUST IN 2000

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Acreage harvested and yield production records based on 2000 Crop Production Summary, Agricultural Statistics Board, USDA. Loss data are a summary of estimates made by personnel of the State Departments of Agriculture, University extension and research projects, Agricultural Research Service, USDA, and the Cereal Disease Laboratory.

Losses were calculated for each rust as follows:

$$\text{Loss (specific rust)} = \frac{(\text{Production}) \times (\text{Percent loss})}{(100\%) - (\text{Percent loss due to rusts})}$$

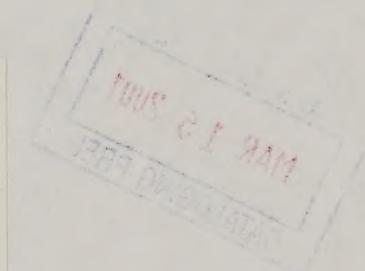
Losses were indicated as a trace when the disease was present but no fields were known to have suffered significant losses. When a few fields suffered measurable losses this was reflected as a percent of the state's production. Zeros indicate the disease was not reported in that state during the season. Blanks for stripe rust indicate that the disease was not reported nor does it occur annually in that state. Trace amounts were not included in the calculation of totals and averages.

**Please note:** The small grain rust loss reports are maintained on our webpage (<http://www.cdl.umn.edu>). To request a hardcopy E-mail David Long or write to the Cereal Disease Laboratory.

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## WINTER WHEAT

State	1,000 acres harvested	Yield in bushels per acre	Production in 1,000 of bushels	Losses due to:			
				Stem Rust		Leaf Rust	
				Percent	1,000 bushels	Percent	1,000 bushels
Alabama	90	54.0	4,860	0.0	0.0	2.0	99.2
Arkansas	1,100	54.0	59,400	0.0	0.0	1.0	645.7
California	350	70.0	24,500	0.0	0.0	1.0	255.2
Colorado	2,350	29.0	68,150	0.0	0.0	*T	T
Florida	9	49.0	441	0.0	0.0	T	T
Georgia	200	54.0	10,800	0.0	0.0	1.0	109.1
Idaho	730	90.0	65,700	0.0	0.0	0.0	0.0
Illinois	920	57.0	52,440	0.0	0.0	1.0	529.7
Indiana	510	69.0	35,190	T	T	1.0	355.5
Iowa	18	47.0	846	0.0	0.0	T	T
Kansas	9,400	37.0	347,800	T	T	2.9	10,392.8
Kentucky	420	57.0	23,940	0.0	0.0	T	T
Louisiana	185	53.0	9,805	T	T	0.5	49.5
Michigan	500	72.0	36,000	0.0	0.0	T	T
Minnesota	19	46.0	874	0.0	0.0	1.0	8.8
Mississippi	235	55.0	12,925	0.0	0.0	1.0	130.5
Missouri	950	52.0	49,400	T	T	2.0	1,008.2
Montana	1,350	33.0	44,550	0.0	0.0	0.0	0.0
Nebraska	1,650	36.0	59,400	T	T	1.0	600.0
New Mexico	175	24.0	4,200	0.0	0.0	0.0	0.0
New York	140	53.0	7,420	0.0	0.0	T	T
North Carolina	550	50.0	27,500	0.0	0.0	1.5	418.8
North Dakota	113	45.0	5,085	0.0	0.0	T	T
Ohio	1,110	72.0	79,920	0.0	0.0	1.5	1,217.1
Oklahoma	4,200	34.0	142,800	T	T	2.0	2,944.3
Oregon	730	62.0	45,260	T	T	T	T
Pennsylvania	195	53.0	10,335	0.0	0.0	T	T
South Carolina	185	49.0	9,065	0.0	0.0	1.0	91.6
South Dakota	1,280	42.0	53,760	T	T	4.0	2,240.0
Tennessee	380	55.0	20,900	0.0	0.0	0.1	20.9
Texas	2,200	30.0	66,000	T	T	1.0	670.1
Virginia	205	63.0	12,915	0.0	0.0	T	T
Washington	1,800	73.0	131,400	T	T	0.1	132.9
West Virginia	9	61.0	549	0.0	0.0	T	T
Wisconsin	135	62.0	8,370	T	T	1.0	84.5
Wyoming	170	24.0	4,080	0.0	0.0	0.0	0.0
Total of Above	34,563	44.4	1,536,580		T		22,004.4
U.S. % Loss						1.4	0.65
U.S. Total	35,022	44.6	1,562,733		T		

\*T = Trace



## SPRING WHEAT

State	1,000 acres harvested	Yield in bushels per acre	Production in 1,000 of bushels	Losses due to:			
				Stem Rust	1,000 Percent bushels	Leaf Rust	1,000 Percent bushels
Colorado	46	70.0	3,220	0.0	0.0	0.0	0.0
Idaho	570	75.0	42,750	0.0	0.0	0.0	0.0
Minnesota	1,950	49.0	95,550	*T	T	1.5	1,455.1
Montana	3,100	25.0	77,500	0.0	0.0	T	T
North Dakota	6,500	37.0	240,500	0.0	0.0	2.0	4,908.2
Oregon	125	46.0	5,750	0.0	0.0	0.75	44.1
South Dakota	1,580	38.0	60,040	0.0	0.0	3.0	1,868.0
Utah	21	50.0	1,050	0.0	0.0	0.0	0.0
Washington	620	54.0	33,480	0.0	0.0	0.1	33.9
Wisconsin	8	45.0	360	0.0	0.0	1.0	3.6
Wyoming	8	29.0	232	0.0	0.0	0.0	0.0
Total of Above	14,528	38.5	560,432		T	8,312.8	426.7
U.S. % Loss					T	1.5	0.07
U.S.Total	14,534	38.6	561,002				

## DURUM WHEAT

State	1,000 acres harvested	Yield in bushels per acre	Production in 1,000 of bushels	Losses due to:			
				Stem Rust	1,000 Percent bushels	Leaf Rust	1,000 Percent bushels
Arizona	85	95.0	8,075	0.0	0.0	0.0	0.0
California	97	100.0	9,700	0.0	0.0	0.0	0.0
Minnesota	2	51.0	102	0.0	0.0	T	T
Montana	470	28.0	13,160	0.0	0.0	0.0	0.0
North Dakota	3,000	28.0	84,000	0.0	0.0	0.0	0.0
South Dakota	18	26.0	468	0.0	0.0	T	T
Total of Above	3,672	31.5	115,505		0.0	T	T
U.S. % Loss					0.0	T	T
U.S.Total	3,672	31.5	115,505				

\*T = Trace



# OAT

State	1,000 acres harvested	Yield in bushels per acre	Production in 1,000 of bushels	Losses due to			
				Stem Rust		Crown Rust	
				Percent	1,000 bushels	Percent	1,000 bushels
Alabama	*NA	NA	NA	**T	T	1.0	-
Arkansas	NA	NA	NA	0.0	0.0	0.0	0.0
California	25	75.0	1,875	T	T	T	T
Colorado	35	63.0	2,205	0.0	0.0	0.0	0.0
Georgia	35	72.0	2,520	T	T	1.0	25.5
Idaho	15	70.0	1,050	0.0	0.0	0.0	0.0
Illinois	55	73.0	4,015	0.0	0.0	T	T
Indiana	25	78.0	1,950	T	T	0.0	0.0
Iowa	180	67.0	12,060	0.0	0.0	T	T
Kansas	50	44.0	2,200	T	0.0	0.0	0.0
Louisiana	NA	NA	NA	0.0	0.0	0.5	-
Michigan	75	64.0	4,800	0.0	0.0	0.0	0.0
Minnesota	310	72.0	22,320	T	T	2.0	455.5
Missouri	30	53.0	1,590	0.0	0.0	0.0	0.0
Montana	50	52.0	2,600	0.0	0.0	0.0	0.0
Nebraska	45	42.0	1,890	0.0	0.0	0.0	0.0
New York	60	65.0	3,900	0.0	0.0	0.0	0.0
North Carolina	30	70.0	2,100	0.0	0.0	2.0	42.9
North Dakota	325	64.0	20,800	0.0	0.0	5.0	1,094.7
Ohio	90	76.0	6,840	0.0	0.0	0.0	0.0
Oklahoma	15	44.0	660	0.0	0.0	0.0	0.0
Oregon	25	98.0	2,450	0.0	0.0	0.0	0.0
Pennsylvania	145	57.0	8,265	0.0	0.0	0.0	0.0
South Carolina	35	60.0	2,100	0.0	0.0	T	T
South Dakota	220	61.0	13,420	T	T	2.0	273.9
Texas	100	43.0	4,300	T	T	0.5	21.6
Utah	7	70.0	490	0.0	0.0	0.0	0.0
Washington	15	75.0	1,125	0.0	0.0	0.0	0.0
West Virginia	NA	NA	NA	0.0	0.0	0.0	0.0
Wisconsin	280	68.0	19,040	T	T	1.0	192.3
Wyoming	27	55.0	1,485	0.0	0.0	0.0	0.0
Total of Above	2,304	64.3	148,050		T		2,106.4
U.S. % Loss						1.4	
U.S.Total	2,334	64.4	150,300				

\*NA = Not Available, therefore not included in loss totals.

\*\*T = Trace.



## BARLEY

State	1,000 acres harvested	Yield in bushels per acre	Production in 1000 of bushels	Losses due to:			
				Stem Rust		Leaf Rust	
				Percent	1,000 bushels	Percent	1,000 bushels
Arizona	36	114.0	4,104	0.0	0.0	0.0	0.0
California	85	68.0	5,780	*T	T	1.0	62.2
Colorado	105	115.0	12,075	0.0	0.0	T	T
Idaho	730	76.0	55,480	0.0	0.0	0.0	T T
Kansas	7	35.0	245	0.0	0.0	0.0	0.0
Kentucky	8	75.0	600	0.0	0.0	0.0	0.0
Michigan	19	60.0	1,140	0.0	0.0	0.0	0.0
Minnesota	240	64.0	15,360	T	T	T	0.0
Montana	950	40.0	38,000	0.0	0.0	0.0	T T
Nebraska	6	27.0	162	0.0	0.0	0.0	0.0
North Carolina	18	80.0	1,440	0.0	0.0	5.0	75.8
North Dakota	1,780	56.0	99,680	T	T	T	T
Oklahoma	**NA	NA	NA	0.0	0.0	0.0	0.0
Oregon	140	60.0	8,400	0.0	0.0	0.0	5.0
Pennsylvania	75	71.0	5,325	0.0	0.0	0.0	0.0
South Carolina	NA	NA	NA	0.0	0.0	0.0	0.0
South Dakota	105	55.0	5,775	T	T	0.0	0.0
Texas	NA	NA	NA	T	T	T	0.0
Utah	78	70.0	5,460	0.0	0.0	0.0	0.0
Virginia	65	89.0	5,785	0.0	0.0	0.0	0.0
Washington	490	70.0	34,300	0.0	0.0	0.1	35.0
Wisconsin	50	64.0	3,200	0.0	0.0	T	T
Wyoming	95	83.0	7,885	0.0	0.0	0.0	0.0
Total of Above	5,082	61.0	310,196		T	173.0	1515.7
U.S. % Loss					T	0.06	0.49
U.S.Total	5,211	61.4	320,195				

\*T = Trace

\*\*NA = Not Available, therefore not included in loss totals.



## RYE

State	1,000 acres harvested	Yield bushels per acre	Production in 1,000 of bushels	Losses due to:			
				Percent	1,000 bushels	Percent	1,000 bushels
Georgia	45	26.0	1,170	0.0	0.0	*T	T
Illinois				0.0	0.0	0.0	0.0
Indiana				0.0	0.0	0.0	0.0
Kansas				0.0	0.0	T	T
Michigan				0.0	0.0	0.0	0.0
Minnesota				T	T	T	T
Nebraska				0.0	0.0	0.0	0.0
New York				0.0	0.0	0.0	0.0
North Carolina	16	44.0	704	0.0	0.0	T	T
North Dakota				T	T	0.0	0.0
Ohio				0.0	0.0	T	T
Oklahoma	70	21.0	1,470	0.0	0.0	0.0	0.0
Pennsylvania				0.0	0.0	0.0	0.0
South Carolina				0.0	0.0	0.0	0.0
South Dakota	19	41.0	779	0.0	0.0	0.0	0.0
Texas				0.0	0.0	0.0	0.0
Virginia				0.0	0.0	0.0	0.0
Wisconsin				T	T	T	T
**Other States	152	29.6	4,496	0.0	0.0	0.0	0.0
Total of Above	302	28.5	8,619		T		T
U.S. % Loss				T		T	
U.S.Total	302	28.5	8,619				

\*T = Trace

\*\*Other States include IL, KS, MI, MN, NE, NY, NC, PA, SC, TX, WI

